

I claim:

1. A sewing thread comprising, in combination,

at least one spun yarn ply twisted together with a second yarn in a first direction about each other along a common axis to form a ply twisted composite yarn, where the spun

5 yarn contains 100% staple fibers, has a single twist equal to or greater than 4 more turns per inch than that of the plied twisted composite yarn, and is twisted in the opposite direction of the ply twisted composite yarn.

2. The sewing thread of claim 1 further characterized in that the each spun

10 yarn has a twist that is equal to or greater than 6 more turns per inch than that of the ply twisted composite yarn.

3. The sewing thread of claim 1 further characterized in that the second yarn is a spun yarn.

15 4. The sewing thread of claim 3 further characterized in that there are at least two spun yarns plied together.

5. The sewing thread of claim 3 further characterized in that there are at  
20 least three spun yarns plied together.

6. The sewing thread of claim 3 further characterized in that there are at least four spun yarns plied together.

7. The sewing thread of claim 1 further characterized in that at least a portion of the staple fiber is a synthetic material.

8. The sewing thread of claim 1 further characterized in that the staple fiber  
5 is composed of one or more synthetic polymers.

9. The sewing thread of claim 1 further characterized in that the staple fiber is selected from the group consisting of wool, cotton, nylon, polyester, rayon, polyethylene, polypropylene, aramid, meta-aramid and mixtures thereof.  
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10. The sewing thread of claim 1 further characterized in that the staple fiber is polyester.

11. The sewing thread of claim 1 further characterized in that the staple fiber  
15 is composed of staple that averages less than about 2 inches in length.

12. The sewing thread of claim 1 further characterized in that the staple fiber is composed of staple less than about 1.5 denier/filament.

20 13. The sewing thread of claim 1 further characterized in that the ply twisted composite yarn has a twist equal to at no more than 4 turns per inch less than the twist of the individual spun yarns.

14. The sewing thread of claim 1 where the individual spun yarns, prior to being plied, have a tensile strength that is less than the tensile strength of the ply twisted composite yarn.

5 15. A process for manufacturing a sewing thread comprising the following steps, in combination,

- a. providing staple fiber;
- b. ring spinning the staple fiber to form multiple spinning bobbins of continuous spun yarn, where the ring spinning imparts a first twist to the spun yarn;
- 10 c. combining the twisted spun yarns from individual spinning bobbins end to end in a single end winding process to form bobbins of continuous single spun yarn while substantially maintaining the first twist in the spun yarns;
- d. combining at least one of the twisted spun yarns from the bobbins formed in step (c) with a second yarn to form a unitary combination of yarns; and
- 15 e. ply twisting the unitary combination of yarns to achieve a second twist that is less than the first twist and in a twist direction opposite that of the individual twisted spun yarns to form a ply twisted composite yarn.

16. The process of claim 15 wherein the second yarn is a twisted spun yarn.

20 17. The process of claim 15 where the ply twisted composite yarn of step (e) is subjected to a finishing procedure.

18. The process of claim 15 where the staple fiber is twisted to at least 4 more turns per inch than that of the ply twisted composite.

19. A sewing thread comprising, in combination,  
5 at least one spun yarn ply twisted together with a second yarn in a first direction about each other along a common axis to form a ply twisted composite yarn, where the spun yarn contains 100% staple fibers, has a single twist equal to or greater than 17 turns per inch, and is twisted in the opposite direction of the ply twisted composite yarn, and has a TEX equal to about 105.

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20. A sewing thread comprising, in combination,  
at least one spun yarn ply twisted together with a second yarn in a first direction about each other along a common axis to form a ply twisted composite yarn, where the spun yarn contains 100% staple fibers, has a single twist between 17 turns per inch and 20  
15 turns per inch and is twisted in the opposite direction of the ply twisted composite yarn, and has a TEX equal to about 105.